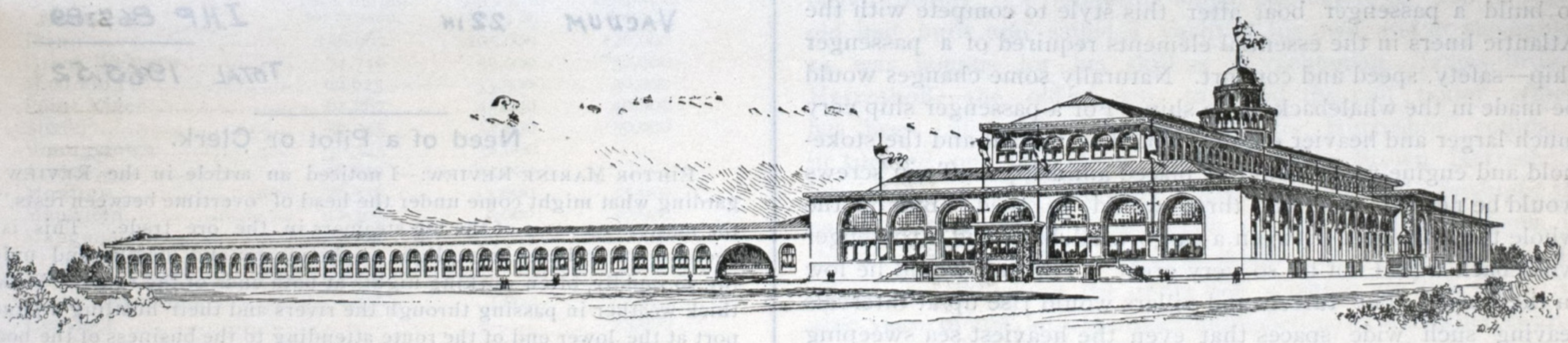
MARINE REVIEW.

VOL. IV. CLEVELAND, OHIO, THURSDAY, OCTOBER 1, 1891. No. 14.

Lake Marine Exhibits at the World's Fair.

The transportation department of the World's Columbian Exposition, that part of the big fair in which the merchant marine of the world is most interested, has issued advance sheets of its prospectus, and we are enabled, through the courtesy of Mr. Willard A. Smith, chief of the department, to present the accompanying illustration of the buildings, to be devoted to transportation exhibits. Although every known means of transportation from specimen vehicles, trappings and crafts of barbarous and semi-civilized tribes to the grandest equipment of the modern steamship and railway lines will be represented in this department, it is proposed to give principal attention to the merchant marine, and the development of water craft from the crudest forms to the Atlantic ocean liners. The navigation of the inland waters of the world, especially the great lakes and rivers will doubtless

WORLD'S COLUMBIAN EXPOSITION—DEPARTMENT OF TRANSPORTATION EXHIBITS—FRONT ELEVATION.



WORLD'S COLUMBIAN EXPOSITION—DEPARTMENT OF TRANSPORTATION EXHIBITS—END ELEVATION OF MAIN BUILDING AND ANNEX.

be illustrated more fully then in any previous exposition. The classification provides, also, for everything of interest connected in any way with the subject of navigation. Small craft of all kinds may be exhibited in full size—vessels from the nature of the case, must be shown by models. For fuller illustration, drawings, plans and paintings will be shown.

There is little doubt that the lakes will be represented at the exposition. The Globe Iron Works Company of Cleveland some time ago secured from England elegant and costly models of the steamers of the Lehigh Valley Transportation Company of Buffalo, and other lake shipbuilding companies have plans for exhibits of their work. Capt. F. B. Higgie of Chicago has been requested to secure pictures of lake boats and he has begun correspondence with that end in view. Among the vessel owners of the different lake cities there are hundreds of paintings of lake carriers that will make an interesting collection in the department to be assigned to the lakes. The owners of these pictures will be asked to loan them to the exposition.

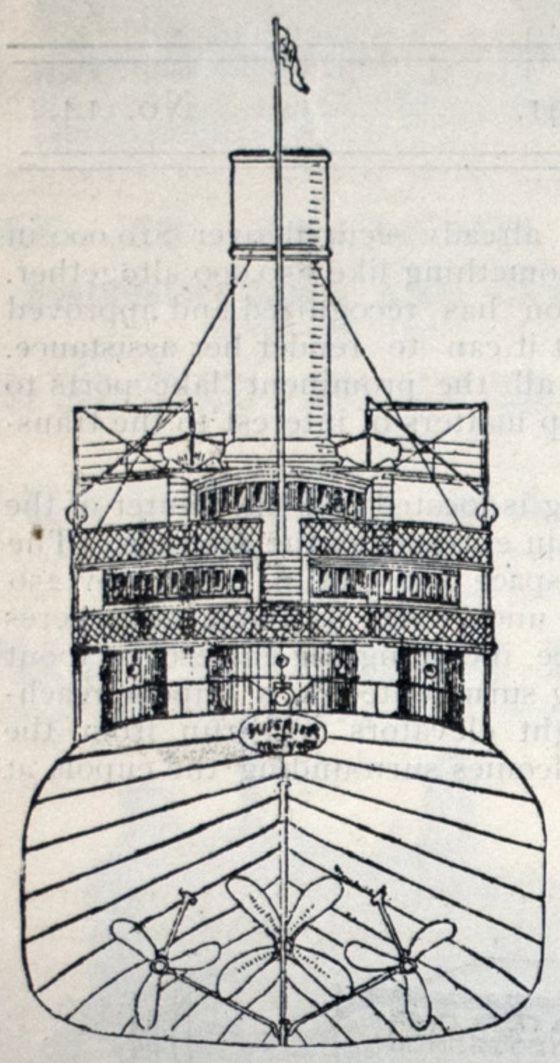
Mrs. Victor Meyers, widow of a former lake captain, and one of the alternate lady managers of the fair, is engaged in an effort to raise a large sum of money by subscription for the purpose of securing a proper representation of the lake marine. The lakes have never had an adequate representation in any kind of an exposition. Mrs. Meyers has already secured over $10,000 in Chicago and expects to secure something like $50,000 altogether. The department of transportation has recognized and approved of her work, and will do all that it can to render her assistance. Mrs. Meyers intends to visit all the prominent lake ports to solicit subscriptions and look up matters of interest to the transportation department.

The transportation building is located near the center of the exposition and close to the main entrance of the grounds. The The main structure covers a space 960 feet in length by 256 feet deep, and additional floor under roof is about nine acres in extent. The total floor space, including the entresol is about seventeen acres. The building surmounted by a cupola reaches a height of 165 feet. Eight elevators will run from the center of the main floor to balconies surrounding the cupola at heights of 115 and 128 feet. The view from this observatory will be very beautiful in the extreme and will give visitors an excellent comprehension of the whole plan of the exposition grounds at a glance. The architects of the building are Messrs. Adler & Sullivan of Chicago who are well known as the architects of the Auditorium and other great buildings. Its general architectural treatment is simple, but with exceedingly rich and elegant details. The main entrance will consist of an immense arch, decorated with carvings bas-reliefs and mural paintings. It will be treated entirely in gold leaf and will be known as "the golden door". The interior of the building is treated much after the manner of a Roman basilica with broad nave and aisles. A 75-foot transfer table will traverse the annex, along the western line of the main building. Railway tracks will be laid in the annex at right angles to the transfer table. The heaviest locomotive and cars can be run direct from the installation track, which runs alongside the southern end of the building, upon the transfer table which will take them to their proper track inside the building. The length of these tracks is such that an entire train can be shown connected as when in actual use.

Information in detail regarding exhibits may be had by applying to Willard A. Smith, chief of department of transportation exhibits, World's Columbian Exposition Chicago Ill., U. S. A.

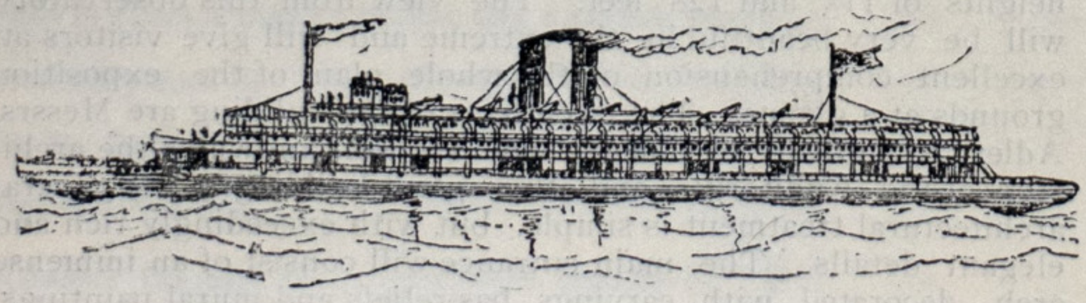
General Plans for a Whaleback Passenger Ship.

The accompanying rough illustrations, furnished to the New York Sun by the eastern office of the American Steel Barge Company, will give an idea of the plans partially prepared by Capt. Alexander McDougall for a whaleback passenger boat, after the model of the Charles W. Wetmore, which crossed the Atlantic, and other cargo carriers of the same type now in use on the lakes and on the Atlantic coast. The illustrations, although not intended to present detail, show in general the style of boat, of which Capt. McDougall has had a painting made for exhibition at the offices of the company, and which is intended, if built, to be given a trial during the World's Columbian Exposition in the passenger trade between Chicago and Mackinaw island, the greatest pleasure resort on the lakes.



STERN VIEW.

The main feature of the passenger boat is simply an extension from stern to bow of the system of turrets upon which the officers' quarters are now built in the whaleback cargo vessels. By laying a steel platform over all of these turrets, that shall be supported on its outboard edges by a row of steel pillars on either side and then building a two-story house, fore and aft, on this platform the thing is done. The New York owners of the whaleback patents say that they actually propose to build a passenger boat after this style to compete with the Atlantic liners in the essential elements required of a passenger ship—safety, speed and comfort. Naturally some changes would be made in the whaleback cargo ship. For a passenger ship very much larger and heavier engines would be needed, and the stokehold and engine room would be placed amidships. Twin screws would be needed—possibly three would be used. But on the whole the difference between a cargo whaleback and a passenger whaleback would not be so very great. The hull would lie low in the water. The turrets and pillars would rise up at intervals leaving such wide spaces that even the heaviest sea sweeping along would, according to the claims of the builders, pass over the hull unimpeded.

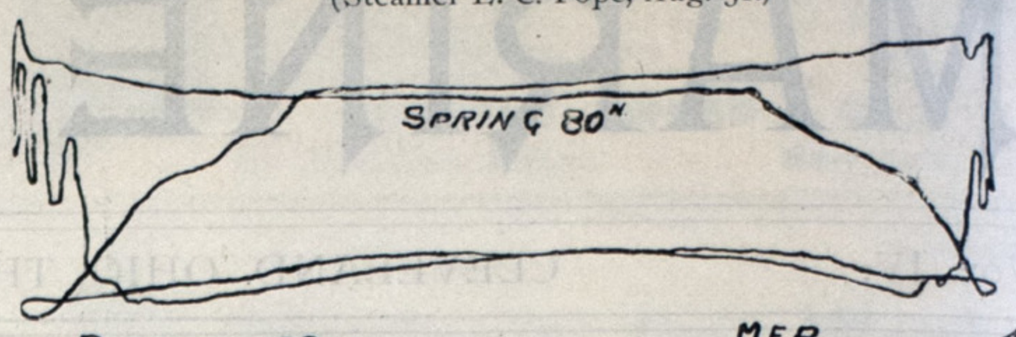


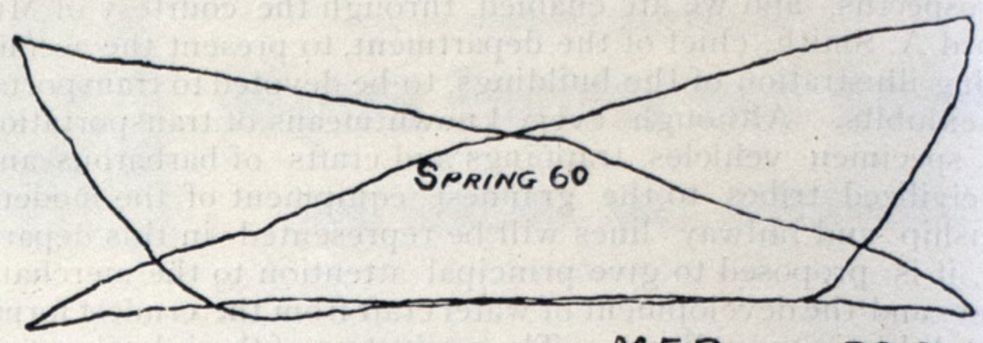
GENERAL VIEW.

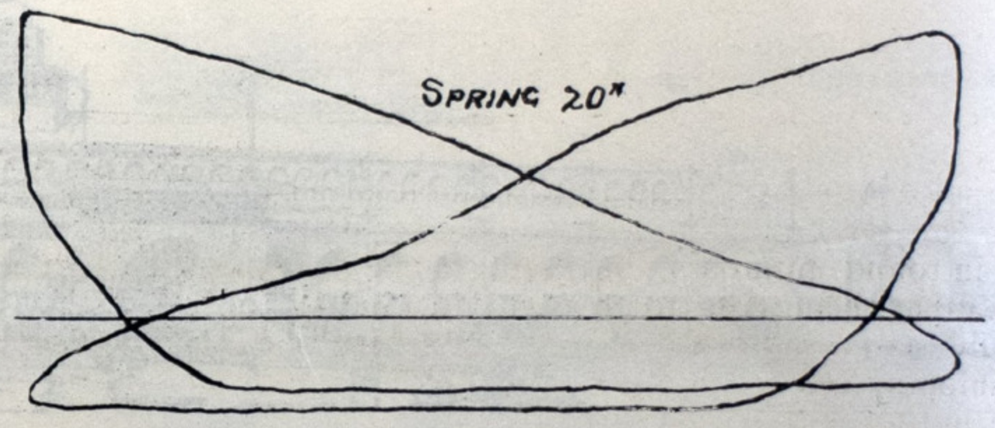
In connection with the plans for a passenger boat the owners of the whaleback patents lay great stress on the principle in construction that instead of being pushed over by a wave rising on one side and exerting its force in one direction entirely, the wave is divided and rolls over the hull. The yacht Livadia, built for the Emperor Alexander of Russia, is referred to as proof of the soundness of this principle, although she lies sunk in the harbor of Sebastopol, on account of structural weakness. In a storm in the Bay of Biscay she is said to have heeled to an angle of less than five degrees. The Livadia was 80 feet broad and 240 feet long and a solid trunk rising from the curved sides instead of the turrets used on the whalebacks.

Indicator Cards—Series 2.

(Steamer E. C. Pope, Aug. 31.)







Need of a Pilot or Clerk.

EDITOR MARINE REVIEW:—I noticed an article in the REVIEW regarding what might come under the head of "overtime between rests," for the masters on some of the big steamers in the ore trade. This is especially true of boats going light on the up run and loading and unloading so rapidly, often working nights at both ends of the route. Between thick weather in passing through the rivers and their hustling around in port at the lower end of the route attending to the business of the boat in getting ready for departure, the masters of this class of boats scarcely find time to accomplish all these duties with justice to themselves or their owners. I am of the opinion that a pilot or perhaps a clerk would be a profitable addition to the crews of steamers so engaged.

PRACTICAL OBSERVER.

Rochester Will Organize Naval Forces.

EDITOR MARINE REVIEW:—As regards the question of treaty relations with Great Britain interfering with the formation of a naval reserve on the great lakes I am still in the dark. I have written Secretary Tracy on the subject but can hear nothing from him. In refutation of the opinion that the treaty of 1817 is a bar to the formation of a naval militia, however, I will state that there will be two batteries mustered in on Tuesday evening at Rochester, N. Y. Poor little Rochester, so much maligned by great Buffalo, usually comes out on top every clip. Rochester gets two full batteries in four weeks, and I got seventen men in as many months in Buffalo. I am inclined to think as far as the naval reserves are concerned the treaty of 1817 is of no importance. W. J. PATRICK.

Buffalo, N. Y, Sept. 27.

Official Numbers and Tonnage.

The bureau of navigation, W. W. Bates commissioner, assigned official numbers to the following lake vessels during the week ending Sept. 19: Steam—Wawa, Milwaukee, 16.81 tons gross, 10.41 net, No. 81,347; Ciscoe, Cleveland, 13.70 tons gross, 6.88 net, No. 126,787. Sail—Champion, Milwaukee, 14.41 tons gross, 13.69 net, No. 126,785; Scorpion, Chicago, 10.38 tons gross, 9.86 net, No. 116,447.

Record of Speed and Big Cargoes.

[*Masters or owners are invited to report improvement on this list.*]

Iron ore: Lake Michigan—Maryland, Inter-Ocean Transportation Company, of Milwaukee, 3,322 gross, or 3,737 net tons, Escanaba to South Chicago, draft 16 feet 6 inches; E. C. Pope, Dry Dock Navigation Company of Detroit, 3,221 gross, or 3,608 net tons, Escanaba to Ashtabula, draft about 16 feet. Lake Superior—E. C. Pope, Dry Dock Navigation Company, of Detroit, 2,828 gross, or 3,167 net tons, Ashland to Lake Erie, draft 14 feet 6 inches.

Grain: E. C. Pope, Dry Dock Navigation Company of Detroit, 125 730 bushels of corn, draft 14 feet 8 inches; Western Reserve, Peter Minch, of Cleveland, 112,431 bushels of wheat, Chicago to Buffalo; W. H. Gilcher, J. C. Gilchrist, of Cleveland, 114,982 bushels of corn, Chicago to Buffalo.

Speed: Owego, Union Line, of Buffalo, Buffalo to Chicago, 889 miles, 54 hours and 16 minutes, 16.4 miles an hour; Saranac, Lehigh Valley Line, of Buffalo, Buffalo to Lime-Kilns, 240 miles, 15 hours and 10 minutes, 16 miles an hour.

Iron Mining.

VALUE OF LEADING STOCKS.

Quoted by Chas. H. Potter & Co., No. 104 Superior St.

Stocks.	Par Value.	Bid.	Asked.
Cleveland-Cliffs Iron Company	$100 00	$.....	$ 82 50
Champion Iron Company	25 00	.....	80 00
Chandler Iron Company	25 00	37 00	39 00
Chicago and Minnesota Ore Company	100 00	.....	100 00
Jackson Iron Company	25 00	.....	110 00
Lake Superior Iron Company	25 00	55 00	.....
Minnesota Iron Company	100 00	77 00	.....
Pittsburg Lake Angeline Iron Co	25 00	.....	.....
Republic Iron Company	25 00	25 00	27 00
Ashland	25 00	.....	53 50
Section Thirty-three	25 00	8 50	10 50
Brotherton	25 00	2 00	2 50

The Diamond Drill of Crystal Falls presents some interesting figures regarding shipments of mines in the Crystal Falls district, where the output of ore this season has been unusually heavy notwithstanding the curtailment of shipments in nearly all other districts. The following table in which the shipments so far this season and on a corresponding date in 1890 are given only in round numbers, but said to be substantially correct, shows that the aggregate product of the mines in the district is already in excess of that of last year during a similar portion of the shipping season, and is a fair indication that the entire season's output will exceed that of 1890:

Mines.	1890. Total output for Season.	1890. Output to Sept. 24.	1891. Output to Sept. 24.
Dunn	156,963	105,000	126,000
Great Western	71,719	59,000	*50,000
Mastodon	66,625	53,500	30,000
Paint River	61,287	43,000	40,000
Shafer	57,345	38,000	50,000
Youngstown	38,345	32,000	.....
Armenia	26,649	22,000	.....
Monitor	26,336	15,000	45,000
Mansfield	18,303	8,000	40,000
Manganate	6,826	.....	.....
Crystal Falls	3,975	.....	.....
Hollister	2,020	.....	.....
South Mastodon	1,476	1,000	.....
Hemlock	.....	.....	25,000
Totals	537,769	376,000	406,000

* Estimated.

The Dunn, Monitor, Shafer and Mansfield mines have all over-reached their work of last year at this time.

Work has been suspended on the "Turner road," being constructed from Champion to Huron bay, Lake Superior, and workmen have found trouble in securing their pay, but the managers of the company claim that the difficulty is between the construction contractors and the men. Sanford Keeler, superintendent of the Flint & Pere Marquette Railway, is said to have accepted the position of superintendent of this new Huron bay railway and it is announced the work will be resumed. The object of the builders in putting a large amount of money into a road that can not at the best handle more than a little timber and some of the ore of the Champion and Republic mines is, however, a mystery to the people ot the upper peninsula.

Ashland shipments on the 23d inst. of Gogebic range mines, several of which are shipping by rail and from Escanaba also, were as follows: Ashland 190,445 tons, Aurora 64,182, Tilden, No. 2, 5,179, Tilden 23,044, Montreal, south vein, 49,410, Palms 28,279, Section 33, Bessemer 30,056, Carey 66,341, Trezona 15,759, Germania 20,653, Iron Belt 1,506, Mount Hope 68,942, Norrie 213,610, East Norrie 95,393, Father Hennepin 14,582, Federal 929, Eureka 12,752, Pabst 71,187, Ruby 913, Sunday Lake 43,185, total 998,726 tons. The Minnesota mine had shipped from Two Harbors on the same date 363,820 tons and the Chandler 255,365 tons. Ludington mine shipments from Gladstone were 101,116 tons and the Hamilton 35,091 tons.

Section 33, Brotherton and Windsor are among the Gogebic range mines that have shipped only a small amount of ore and that mainly by rail this season. With the big stocks being held over at the Colby, Aurora and other properties in the Wisconsin Central syndicate, the Gogebic range will have a large quantity of ore to offer in event of improvement in the iron market during the coming fall and winter.

The Commonwealth Mining Company has 360 names upon the pay-roll, 225 of whom are employed at the new Badger mine. Shipments and mining operations have been temporarily suspended at the Davidson, but 1,000 tons of ore is being hoisted daily at the Badger and Commonwealth mines.—Florence News.

Night forces on the Duluth & Iron Range Railway and on the docks at Two Harbors have been laid off, on account of iron carriers being diverted to the grain trade and the policy of the Chandler mine in holding over some of the ore in stock in preference to selling it at present prices.

Preparations are being made for the sinking of another shaft on the property of the Lake Superior Company adjoining the Winthrop on the north.

A fall of rock and earth in that portion of the Republic mine recently damaged by fire caused the death of three more miners a few days ago.

The Famous Herreshoffs.

The inventive genius of Darius Greene, the inventor of the flying machine, does not compare with the genius of Nathanial Greene Herreshoff, the designer of the flying yacht Gloriana. The genius is inherited, for the Herreshoffs have been famous in this line for a century. The father of the present family was born in 1809, and as soon as he was old enough to whittle began turning out miniature ships, and before he was 12 years old had built and sailed a yacht of his own, and at the age of 14 was famous for his skill as a yachtsman. James Brown Herreshoff, the oldest son, invented the coil boiler, which has been of great advantage to the Herreshoff company in turning out fast steam yachts. John Brown Herreshoff, president of the company, began the actual business of naval construction in 1864. The designer of the Gloriana, is the seventh son, and as soon as he could walk he was often found asleep on the shore, the rising tide washing his bare feet. At nine years of age he was an accomplished sailor and when twelve years old sailed the Sprite in a race and easily won. After graduating from an institute of technology, he spent seven years in the Corliss engine works, Providence. In 1877 he invented a catamaran that sailed 21 miles an hour, the fastest time ever made with a sailing vessel.

Coal Product of the United States.

A census bulletin on the coal product of the United States shows that the coal product of the country reached a total of 141,229,513 short tons in the census year and was valued at the mines before any expenses for shipment at $160,226,323. The product included 45,600,487 short tons of Pennsylvania and other anthracite, worth $65,789,514, and 95,629,026 short tons of bituminous and lignite, valued at $94,346,809. The average value of all salable grades of anthracite was $1.58 per ton at the mines, and the average of bituminous coal was 99 cents per short ton at the mines. In 1880 the total product included 28,649,812 short tons of anthracite and 42,831,758 short tons of bituminous coal. The value of the entire product was $95,640,396. The product increased 97.57 per cent, during the decade and the total value 67.53 per cent. The total number of persons engaged in the industry was 299,559, who received in the aggregate $109,130,928 as wages.

Lake Freight Situation.

A falling off in grain shipments has caused a slump in freights, but there is again evidence of a reaction and a more settled market. The inability of railways and terminal facilities at Duluth, Chicago and Buffalo to handle the grain and meet the requirements of almost the entire lake fleet directed to that trade, together with a light movement in coal acting against a scattering of the fleet, are conditions that are accepted as a cause for the decline in rates. And then, too, ore shipments were restricted, on account of the rates reaching a basis where producers were not only compelled to confine the movement almost entirely to contract boats but were also forced to charter some of their own boats for grain, in order to even up their vessel earnings in a trade that presented more profit than the ore. Duluth receipts are again improving, however, and 3½ cents is refused by vessel owners on boats to arrive. Ore rates can be quoted at 95 cents from Escanaba, $1.15 from Marquette and $1.30 from Ashland. When it is considered that Duluth's shipments of grain for less than thirty days of the present crop season are fully 500,000 bushels in excess of the aggregate shipments for all of last season, the demand upon the railways of the northwest for extra equipment will be understood. The drag in coal shipments on accouut of crowded docks at upper lake ports has been a severe drawback to the vessels and there is little hope of any improvement in this part of the lake trade. The rate from Ohio ports to Escanaba and Gladstone has been reduced to 40 cents, and it is more than probable that the 45-cent rate to the head of Lake Superior, as well as the rate of 50 cents to Chicago and Milwaukee, might also be lowered if any great effort was made in that direction, as boats have gone begging for loads at all ports. A strike in the Pittsburgh coal district, where the miners went out Thursday morning for 92 cents a ton, an advance of 13 cents, will tend to still further reduce the soft coal movement, although shipments of Pittsburgh coal when freights are low are not as heavy as when the carrying charges are high enough to exclude the poorer grades of coal.

A Convention of Lake Interests Assured.

There is now little doubt that a convention of lake interests will be held during the coming winter, probably about the time of the Christmas holidays or a little later, for the furtherance of lake improvement, and this means also a consideration of the subject of an outlet to the seaboard. It was thought in most quarters that the regular course of legislation in the next Congress would bring about the small appropriation, little more than $3,000,000 according to the official estimate of Gen. O. M. Poe of Detroit, for a 21-foot channel from the northwest to Buffalo, and that there would be no need of a convention for the furtherence of this or other ordinary projects that must follow the works at Sault Ste. Marie, already provided for, but the popular feeling aroused by the great growth in this commerce and the reduction in rates of water transportation has brought about a demand for a convention that will undoubtedly result in the greatest gathering of water transportation interests ever held in this country. Answers to inquiries sent out by united action on the part of three commercial bodies in Detroit show this, and it is evident also that agitation in favor of projects already under way on the lakes will be over-shadowed by discussions pertaining to the great subject of a deep-water outlet to the Atlantic.

The only question now seems to be a settlement upon the place for holding the convention. Although the commercial bodies of Detroit began the movement at the suggestion of Congressman Stevenson, it is more than probable that that city with Cleveland, Buffalo and other places on the lower lakes where there is no need of making converts, will give way to Chicago or some city in the northwest as the proper place to hold the convention. Chicago is already bidding for it, on the claim that its newspapers have a widespread influence in all of the western and northwestern states, that the different interests of the states beyond the head of Lake Superior could readily be centered there and that the convention, if held during the holiday adjournment of Congress, would be attended by members on their way to the northwest. On the other hand, the substantial results secured from the convention held in St Paul several years ago, when delegates assembled from Montana, Nebraska and the Dakotas to urge the necessity of building the new lock now under way at Sault Ste. Marie, is an argument in favor of the gathering being held in some northwestern city. In Cleveland Messrs George H. Ely, M. A. Hanna, B. L. Pennington and other members of the board of trade and vessel owners' association have recommended that the Detroit bodies be assured of full co-operation, and similar assurances have been forwarded from Duluth, Su- and other cities, but there is no suggestions as yet as to the place for holding the convention. It is more than probable, however, from the drift of opinion among those who take most interest in such matters that Chicago or some northwestern city will be selected.

Our Supplement of the Virginia.

With this issue the MARINE REVIEW presents a photo-gravure supplement of the twin-screw steamer Virginia, the elegant passenger boat recently built by the Globe Iron Works Company for the Goodrich Transportation Company of Chicago. The boat has been fully described in former issues. This engraving, however, is from a painting that has been thought worthy of reproduction. It represents a night scene on Lake Michigan, and was made by H. F. Sprague, Huron, O., for General Manager Pankhurst of the Globe Iron Works Company. The boat with her grand electric light equipment is shown in every detail, the engraving giving a fair idea of the effect of these hundreds of lights in the painting. The Virginia carries two 400-light dynamos, driven by Payne automatic engines, her electric plant, put in by the Mather Electric Company of Chicago, being one of the most complete ever placed aboard a steamboat.

Whalebacks for the Northern Pacific—Grain Movement.

Special Correspondence to the MARINE REVIEW.

DULUTH, MINN., Oct. 1.—Capt. McDougall has announced that he has contracted to build four steamers for an outside company, unknown, but supposed to be the Northern Pacific Railway Company. They will be 306 feet long, and have a capacity of 2,500 tons on 14 feet 6 inches. This will make fourteen vessels the works of the barge company will put out by next spring.

The movement of wheat in and out of Duluth has kept up to former high figures. Indeed the week's shipments were over 518,000 bushels greater than for the previous week. The vessels coming here had all they could do. Many were delayed a day by the scarcity of wheat for shipment, owing to the large amount going forward and it was a lucky vessel that did not have to go to at least three different houses before its cargo was complete. The rate to Buffalo remained at 4 cents until after the Chicago break when it dropped to 3½ cents. The present week's shipments will be large, but probably will not equal the big record of last week, which, I think, beats anything in the history of the Duluth wheat market. It is thought by some that the receipts will fall off somewhat on account of the late rains in Dakota, which have stopped threshing and selling for the time being. On Wednesday last 611,000 bushels were loaded out and on Friday 497,000 bushels. The total shipments for the week were 2,298,417 bushels, against 1,779,377 the previous week. Receipts were 2,298,093 bushels against 2,273,368 bushels.

Tide Water Impressions.

Special Correspondence to the MARINE REVIEW.

NEW YORK, N. Y. Oct. 1.—In crossing the North river the first remark of a lake man is concerning the facility with which ferry boats, tugs, barges, oyster sloops and all classes of craft dodge one another. There is a continual interchange of passing signals. This may be complimentary to the men in charge of the hundreds of craft in this great harbor, but it is the humble opinion of the average visitor from the lakes that even the metropolis might profit by some of the modern methods in inland transportation and not least of these is the matter of handling cargo. It seems as if everything had to be transferred here if for no other reason than to employ the thousand and one single-masted barges that skin around from slip to pier. Enough canvas is carried on the single mast to create the impression that the barge can handle herself, but the chief end of the spar is for block and tackle fastened to a hand winch, which is operated by the first and second mate and crew all composed of one man.

With a few exceptions however, New York harbor is the synonym of greatness in the marine line. Over in Brooklyn lies the Norwood, the bona fide 30-mile yacht. The Cushing, the fastest torpedo boat, lies at the

SEND 10 CENTS IN STAMPS FOR ADDITIONAL COPY OF THE SUPPLEMENT IN THIS ISSUE.

Brooklyn navy yard, and the fastest sail yacht Gloriana was expected to arrive. A race between these and a few other flyers was proposed. It is claimed that by laying off heavy guns etc., the Cushing could run away from all others. Then over at the navy yard the Miantonomah is almost ready for sea. She might be called the "whale-backed" war ship. Originally she was one of Ericson's monitors but now she is almost new. At the Quintard works the monster engines of the Maine were turned over the other day.

In mentioning the great things in the harbor, the Plymouth, Pilgrim and sister-ships should not be neglected. The latter is the fastest and finest paddle wheel steamer in the world. It is said she cost a million. It would be worth the loss of a day even if you had no business in Boston to run up to Fall River on any of the Fall River liners. Fancy prices are not a part of the grand equipment of these boats, as the charge for a large and elegantly furnished stateroom is but $2. In going out of East river through Hell Gate, the tide is so heavy that a stop or change of cou rse would put the boat on the rocks. But the careful officers in charge have never yet met with an accident. Nevertheless, each evening as the boat is passing out into the sound the mate and four men take their position at the anchor and remain fifteen minutes. This is an example of the care and discipline aboard these boats. After all the motive power is the most interesting part of a steamer, and the engines of the Plymouth is the only one of the kind in the world. It is a four-cylinder triple expansion, double inclined engine, with 5,000 h. p. The high pressure cylinder is 47 inches, intermediate 75 inches and the two low pressure cylinders each 81½ inches. The stroke is 99 inches. The weight of the cranks would give an uneven motion if the air pumps on the low pressure cylinders did not work hardest when the cranks were going down. Our lake engineers ought to see Chief Engineer Benson, spectacled, clad in blue broad cloth, with soft white hands. He had no need of grabbing a piece of waste when he shook hands with one of the largest stock-holders in the line; and he seemed to have no fear of losing his position when he excused himself to this same stockholder and entered into conversation with a friend, a prominent divine of New York, returning to the stockholder when he got ready.

CHICAGO LAKE INTERESTS.

WESTERN OFFICE, MARINE REVIEW,
No. 210 So. Water Street, CHICAGO, Ill., Oct. 1.

What a fall there was, my countrymen, in grain rates by lake! One day everything went. The next it was hard to get a shipper to take a boat. When the first drop came to 3¼ cents, Capt. Carr offered me $25 if I could get a load for an 80,000 bushel boat he had on his hands. An offer to spend the commission with a big shipper in a supper did not succeed in finding a cargo, although the shipper seemed well disposed toward the supper idea. The next day the boat was chartered at 3 cents. Monday it looked bad, but Tuesday the situation was much better, and vesselmen hoped that the bottom had been reached. But wheat is so uncertain that vessel owners must not place too much dependence on cargoes. They are not to be had on call. Rates are due to break at any time, as the market fluctuates.

A very pretty excursion steamer, the Sunbeam, has come out of Miller's shipyard, and is now on the way to Petoskey to turn an honest penny in the fish trade. She will be on the lake front next summer.

Canal street bridge is again at the front. The city aldermen have decided that the United States government was not in it, and that settles it. What a Chicago alderman says on a legal point goes, the supreme court of the United States and the attorney general notwithstanding. Some of the arguments used are funny. One of the Chicago papers had an editorial on this Tuesday that was a daisy in full bloom. It contained more rot in a third. of a column than you often discover. In fact, the article was so silly, there was room for the suspicion that the man who wrote it had been imbibing. It is just such work as this which brings newspapers into disrepute. But the war is on. The question of jurisdiction over Chicago river is going into the courts, there to be fought out. The case will be most important to every city on the lakes where rivers are used for harbors. The next move will be a suit in the United States court to collect the fine of $5,000 for every month the city allows the bridge to remain. The mayor is the one who will get the fine.

It is now said that the contract for the new Graham & Morton steamer will be signed this week.

The committee to arrange the naval display at the Grant monument unveiling, Oct. 7, will meet Friday afternoon in Collector Clark's office. Vessel owners generally around the lakes have consented to have what boats they have leaving or entering the port that afternoon take part in the display. General Manager Henry will have one and if possible two of the Lehigh Valley liners on the lake front that day. If the weather is fine, the display will be worthy of the modern lake marine.

Marine men will not have a chance after all to vote for Capt. James S. Dunham for drainage commissioner. For a time it seemed most likely that Capt. Dunham would be nominated by the Republican convention. The petition of the river interests had great weight, but the political bosses stepped in and it was soon found that business qualifications and fitness for the place were to have nothing to do with the nomination. Politics in a city like Chicago is as much a business as selling shoes or measuring calico. To have carried the primaries against these professionals would have required at least $10,000 on the north side. Capt. Dunham decided accordingly, that it was not worth while to go into the convention, and he withdrew from the field Monday evening. He feels deeply grateful to the river interests, which came so strongly to his support. His chief regret is that the improvement of the river seems a long way off with the turn affairs have taken.

First Metal Boat Ever Sold on the Lakes.

Special Correspondence to the MARINE REVIEW.

DETROIT, Mich., Oct. 1,—It is remarkable that the steamer E. C. Pope, sold by the Dry Dock Navigation Company of this city on Saturday last to the Eddy brothers of Port Huron, is the first metal boat ever sold on the lakes after going into commission. All metal boats built on the lakes during the past eight or ten years have since been held by owners who either contracted with the builders for their construction or bought them while they were under way. There has been transfers of interests, as in the case of the Minches and the Cleveland Rolling Mill Company, owners of the steamers Devereux and Chisholm, but steel vessel property has been fairly profitable during all of these years and the boats of this class are mostly in good hands. The price given out in the sale of the Pope is $225,000. On her way to Duluth from Buffalo, Saturday, she stopped at the Springwells dry dock, where she was put in dock. She was then examined by C. A. Eddy, J. F. Eddy, Selwyn Eddy and C. F. Eddy, assisted by Capt. Jas. Millen. Everything being found satisfactory, the party visited the Detroit Dry Dock Company's office where they met Alex. McVittie, Frank E. Kirby, and Gilbert N. McMillan owners of the Pope and after a short consultation the deal was consummated.

The steamer Telegram was in Clark's dry dock Saturday for a new wheel, which was put on by the Dry Dock Engine Works. The Dry Dock Engine Works also put a new cylinder in the Iron King last week and is at work on the machinery of the Iron Age. The Iron Age is lying at the shears dock.

Work on the new dry dock is progressing favorably. Dredges are at work removing the clay from the cofferdam in order to get it ready for the gate. The yard is being cleaned up around the dock, and the tunnel, from the dock to the pump, is completed.

Canadian News Marine.

Special Correspondence to the MARINE REVIEW.

KINGSTON Ont. Oct., 1.—At present there are 900,000 bushels of grain on the way to Kingston. While these immense quantities are coming forwarders complain of a profitless season. One thing that they have had to contend with this season was breakage in the river canal. The breaks have been so frequent that horses can not be used to tow the boats. The towing has to be done by barges and there being no snubbing posts, barges under way collide and do considerable damage. The expense in this connection has been considerable so far this season. The government should place snubbing posts along the canal, to be used in cases of emergency.

The old steamer Geneva, built many years ago in Kingston was burned to the water's edge in Oswego. She was owned by Nelson Skinner and insured for $4,000. The fire occurred just after she reached the dock, after having taken excursionists to a pleasure grove. Had the fire occurred while on the lake, the passengers would not have had time to take to the boats.

At last the steamer Ontario, purchased for the Cuban trade, has reached New York. Capt. Sweet states it was not so much the rough weather as his inability to get a good crew that caused the delay. The crew shipped at Oswego was not under articles and therefore deserted. The trip to New York was a very expensive one.

Mariners are beginning to clamor for a steam fog whistle here. Recently a fog hung over this vicinity for two days and nights and detained steamers in port at considerable loss. Then again several grain vessels feared to enter the harbor, and would not do so until a tug was sent out to tow them in. The old signal bell at Nine Mile point is next to useless as a guide to entering the harbor.

On her way in from Toledo, recently the Benson picked up a cabin off Nine-Mile point, that is supposed to be that of the Persia, sunk at Long point.

The Richelieu and Ontario Navigation Company, owners of the mail steamers, intend putting on two new steamers between Toronto and Prescott next season. The Corsican and Spartan are already dry docked at Montreal for repairs. They will go into winter quarters here.

Calvin & Co's. timber vessels are now in the grain trade. The timber trade this season was short and not a bonanza by any means. The company's new vessel Ceylon has left in tow of the Calvin for Duluth, where she will receive her first cargo.

MARINE REVIEW.

DEVOTED TO THE LAKE MARINE AND KINDRED INTERESTS.

JOHN M. MULROONEY, ... } PROPRIETORS.
F. M. BARTON, ... }

HOMER J. CARR, - - - Associate Editor and Manager Chicago Office, 210 South Water Street.

Published every Thursday at No. 510 Perry-Payne Building, Cleveland, O.

SUBSCRIPTION—$2.00 per year in advance. Convenient binders sent, post paid, 75 cents. Advertising rates on application.

The books of the United States treasury department contain the names of 3,510 vessels, measuring 1,063,063.90 tons in the lake trade. In classification of this fleet the lakes have more steamboats of 1,000 to 2,500 tons than the combined ownership of this class of vessels in all other sections of the country. The classification is as follows:

Class.	Number.	Tonnage.
Steam vessels	1,527	652,922.25
Sailing vessels	1,272	328,655.96
Canal boats	657	67,574.90
Barges	54	13,910.09
Total	3,510	1,063,063.90

According to the report of William W. Bates, United States commissioner of navigation, 46 per cent of the new tonnage of the country was built on the lakes during 1889. This is a percentage greater than the work of the Atlantic coast and western rivers combined, and almost equal to the whole work on the Atlantic and Pacific coast. In 1890 the tonnage built on the lakes is but very little less than that built on the Atlantic and Gulf coasts. Tonnage built on the lakes during the past five years was as follows:

	No. of boats.	Net Tonnage.
1886	85	20,400.54
1887	152	56,488.32
1888	222	101,102.87
1889	225	107,080.30
1890	218	108,515.00
Total	902	393,597.03

Annual tonnage entries and clearances of the great seaports of the world, for 1889: New York, 11,051,236 tons; all seaports in the United States, 26,983,315 tons; Liverpool, 14,175,200 tons; London, 19,245,417 tons.

Tonnage passing through Detroit river during 234 days of navigation in 1889, amounted to **36,203,606** *tons. Ten million tons more than the entries and clearances of all the seaports in the United States, and three million tons more than the combined foreign and coastwise shipping of Liverpool and London.*

St. Mary's Falls and Suez canal traffic: Number of boats through St. Mary's Falls canal in 1890, 234 days of navigation, 10,557; tonnage, net registered, 8,454,435. Number of boats through Suez canal during 1890, full year, 3,389; tonnage, net registered, 6,890,014.

Entered at Cleveland Post Office as Second-class Mail Matter.

THE steam yacht Norwood, owned by Norman L. Munro of New York, who has had several very fast yachts built by the Herreshoffs and others during the past several years, is a wonderful example in the line of naval advancement in this country. The Norwood is known to have made 30 miles an hour for two consecutive hours before reliable witnesses, and she makes 26 and 27 miles an hour without difficulty. The boat has a powerful tubular boiler invented by C. D. Mosher of New York, which is soon to be exhibited to the secretary of the navy. The Safety Valve, a reliable technical publication which has given a great deal of attention to the new boat, says that both Mr. Munro and Mr. Mosher believe that the Norwood is the precursor of the steamship which will cover the 2,800 miles between Sandy Hook and Queenstown within ninety-six hours. The success of the Norwood has convinced Mr. Munro of the practicability of making a yacht twice her length on the same model that will make thirty knots, or about thirty-five shore miles an hour, and he is going to make one.

THE Pan-American Transportation Company is the name of a Chicago concern that has sent out a prospectus dealing with plans for a line of steamships, to run between southern ports of the United States and the principal ports of South America, Central America and the West Indies. Press dispatches from different parts of the country have reported the original capital of the company at $10,000,000, said to be already subscribed. Some of the lake ship-builders have heard from J. B. Clarke of Chicago, one of the promoters of the scheme who talks of building twenty-five boats in connection with other stories of the "vast undertakings" of the company. A late report from New Orleans says that Mr. Clarke is associated with the Illinois Central Railroad, but President Stuyvesant Fish of the Illinois Ceniral a few days ago telegraphed the Manufacturer's Record of Baltimore that his company has no knowledge either of J. B. Clarke or the Pan-American Transportation Company, and is in no way interested in their projects.

WHILE the state department is giving attention to that part of the treaty of Washington which is being violated by Canada in the matter of Welland canal tolls, would it not be well also to consider a feature of the treaty of 1817 which, according to the recent ruling by Washington authorities, prohibits the building of war vessels of any kind on the lakes. It was through a clause in this treaty that F. W. Wheeler & Co. of West Bay City were a short time ago refused the contract for a practice ship, although they were the lowest bidders, and now there is doubt whether this same vessel can be brought up to the lakes for exhibition at the World's Fair. The organization of a naval militia on the lakes, if vessels are to be used in practice for the militia, is also in doubt on account of the treaty.

THE American Shipbuilder has just begun to worry itself over the fact that steamboat officers must pass an examination before government inspectors and be guided by government rules, while there is little or no restriction over sail vessels. The Shipbuilder would have an inspection service applied immediately to sail as well as steam vessels, but the task is a bigger one than it appears to be at first glance. When the different bureaus of the treasury department governing the merchant marine are removed from that already over-crowded branch of the government and made to form a department of marine there will be hope of governing the management of sailing vessels.

Affairs in Admiralty.

MEARS—WILHLM CASE.

The famous decision of Judge Hammond of Tennesee, while sitting in the federal court in Detroit last March, in the case of Vance et al., owners of the schooner Mears against the propeller Wilhelm is just reported in full in the current issue of the Federal Reporter. The MARINE REVIEW printed the oral decision of Judge Hammond at the time but it may be well to give here the syllabus, which was evidently prepared by the court and is as follows: "A propeller having a schooner in tow made a trip on Lake Huron at the very end of the navigation season. On passing a certain harbor (Thunder bay) the weather gave indications of a storm, but the propeller kept on her course. The storm soon grew to be one of unprecedented severity, and while the vessels were near a lee shore, (Fish point) the tow line broke and the schooner was wrecked. The court held that the action of the master of the propeller in keeping on his course in such an emergency was not negligence. Where circumstances are evenly balanced, which indicate a choice of action in time of danger, the master's decision in the matter of navigating the vessel is conclusive, and although he may err in judgement, it is not negligence if the master be competent. Hypercritical scrutiny into the conduct of the navigation, after the event of the disaster and in the light of that which has happened, is not the test of negligence, but prudent judgement is to be tested by the circumstances as they appeared to the master at the time he was called to act, and not as they appear to the court after more critical scrutiny than the master could have given to them."

Judge Simonton of the federal courts, South Carolina, decided recently that in a libel against a vessel for supplies and advances made in a foreign port, evidence that the supplies were given and the money advanced in good faith, on the order of the master, is sufficient *prima facie* proof that such supplies and advances were necessary. It had been claimed that the libelant should show that the supplies and advances were necessary.

Around the Lakes.

Capt. Buckley of Port Huron has sold the schooner Dauntless to Capt. William Glass of Sarnia on private terms.

Chauncy E. Mitchell will remove the wreck of the scow Hannah Moore, sunk near the Flint & Pere Marquette dock, Port Huron. Gen. Poe asked for bids for the work and Mr. Mitchell's bid of $880 was the lowest.

It is expected that the schooner North Star of the Northern Steamship Company's fleet will make seventeen round trips between Buffalo and the head of Lake Superior during the present season. She now leads the "Hill" boats with her fourteenth trip about completed.

The steamer City of Owen Sound was raised 50 feet from her resting place at the bottom of Georgian bay the other day, but the chains supporting her broke and she went to the bottom again. She is in 100 feet of water. The Collinsby Rafting Company has the job of raising her and is using steel pontoons for the purpose.

A Detroit paper gives a Cleveland captain a very nice complimentary notice, detailing his experiences as master of some Pacific coast steamers. It adds that the captain commanded the famous Queen of the Wave between San Francisco and Hawaii, and that the Queen had the record of having sunk six vessels, including two steamers, three schooners and a whaler. It is to be inferred that the captain was hero of all these disasters

One suit for demurrage has been commenced at Buffalo. Capt. James Davidson of West Bay City libeled the grain cargo of the steamer City of Paris, because his boat was not unloaded within five days after arrival in port. Some delay must, of course, be expected in handling Buffalo's big grain receipts from this time on, and it is difficult to collect demurrage under such circumstances, but it is certainly unfair to the vessel owner that railway elevators like the Erie and others should take more vessels than they can care for while other houses are idle.

The Sheriffs Manufacturing Company, Milwaukee, has closed a contract for a 20 x 24 engine with independent cut off, Schutte condenser, with boiler 7 feet 6 inches by 13 feet 6 inches to carry 140 pounds steam, and a 7 foot 2 inch wheel for a new tug for C. H. Starke & Co., dredging contractors. They have also completed a 14 x 16 engine, 5 foot 6 inch boiler 10 feet long, allowed 130 pounds steam, for the tug Hermann. Their propeller wheel business is flourishing. They have placed a 13-foot wheel of their new improved pattern, on the steamer Pabst, an 11 foot wheel on steamer Ionia, an 11 foot 3 inch wheel on steamer John Duncan, a 9 foot 4 inch wheel on steamer Dyer, and many smaller sizes. Wheels furnished lately range from 18 feet to 7 feet. The order for the John Duncan's wheel was received at 9 o'clock p. m. Saturday. They cast the wheel and fitted same, keying it on the shaft, by 8 p. m. Tuesday, which is considered the quickest work ever done in this line.

Mr. C. H. Woodruff, managing owner of the steamer Emily P. Weed, writes from Duluth to Buffalo in regard to the dispatch sent from Sault Ste. Marie concerning the time made by the steamer between Buffalo and the Sault canal. Mr. Woodruff states that he was aboard the boat and that her time was better then was reported, she having made the run of 600 miles in 44 hours instead of 48 hours, as reported. The 997 miles between Buffalo and Duluth were covered in 72 hours. "This is a good run" says Mr. Woodruff "considering the checks we made at Bar point, Grosse point and St Clair canal, besides several times on Lake Huron and the Sault river. The time from Buffalo to Fort Gratoit light was 24 hours, and from Fort Gratroit light to Detour was 14 hours and 20 minutes, from Detour to the Sault canal locks 5 hours and 40 minutes. You can see we checked down considerably in the Sault as we have run that river in 4 hours and 45 minutes. The Weed is a much smarter boat then we supposed and I haven't a doubt that we can get 16 miles an hour out of her."

I have spent the best part of my life in the public service. Much of it has been writing in water, but what little I have accomplished in connection with the life saving service is compensation sweeter than honey in the honeycomb. It is its own exceeding great reward. It speaks to me in the voices of the rescued, ay, in tears of speechless feeling, speaks of resurrection from death, speaks of faith triumphant over all fears in the better elements of our human nature. It sounds like the undulations of the Sabbath bell ringing in peace and felicity. It comes to me in the words of Him who, regardless of life, gave it freely that other lives might be saved.—The late S. S. Cox.

Treasury Department Decisions.

Concerning posting of certificates on steam vessels, the treasury department made the following decision: The case of the steamer Florence was reported by an officer of the revenue steamer Forward, not to have posted, as required by sections 4423 and 4446, Revised Statutes of the United States, the licenses of master and engineer, and the certificate of inspection. An additional report was obtained, showing, substantially, that the master's license was posted in the pilot-house, and the engineer's license and two certificates of inspection in the engine room under glass. The commander of the cutter considered this a violation of the regulations, for the reason that certain persons only are allowed in the pilot-house, and for the further reason that the pilot-house and engineer room were not, in his judgment, "conspicuous places," within the meaning of the law.

The vessel in question, measuring less than 100 tons, was inspected under the provisions of section 4426, Revised Statutes, which requires compliance only with the regulations of the board of supervising inspectors before the granting of certificate. The board has made no regulation requiring the certificate to be exposed in such cases, as mentioned in section 4423, Revised Statutes, and the department is informed that such vessels are usually so constructed as to make it impracticable for them to comply with the requirements of the section. It was sufficient, therefore, to have the certificate on the boat, and no penalty need be imposed.

It was suggested that revenue officers should be more specific and definite in their complaints of violation of law in such cases, so that the department may be able to determine, without requiring additional reports, whether or not the laws have been violated.

Mr. James P. Root of Chicago wrote the treasury department stating that his son wished to use a pipe boiler in a steam yacht for pleasure purposes only and questioned the right of the supervising inspector at Detroit to collect actual expenses of the trip to make examination for granture of department permit. He cited the repeal of steam vessel inspection fees. The department decision was that no fees were ever authorized for inspection of newly invented boilers, and therefor no fees were abolished. Section 4429, Revised Statutes, refers to the matter, saying that nothing in the title shall be construed to prevent the use of any steam generator that the board of inspectors is satisfied is as safe as riveted iron or steel plates. A provision was made, giving permission to use such steam generator on certificate of district supervising inspector until the next regular meeting of the board. It was decided that such services were not in behalf of public interest and the department ratified the customary collection of inspectors' traveling expenses, but added that the inspector was in error in claiming the right to select experts, which may be done by party owning boiler.

Fog Signals.

The report of a committee of experts appointed by the Canadian government to consider the merits of fog horns as against whistles, and guns as against bombs, it is of great interest to all mariners. As the result of its inquiry, the committee states that under the most favorable conditions all fog-signals are unreliable. Sometimes a weak signal has been heard further than a strong one, and shallow water, by causing unequal heating of the atmosphere, lessens the value of signals. Save as regards cost, the whistle is held to be superior to the horn, and either is better than powder; but it is only in comparatively few places that the cost and inconvenience of a steam signal would be warrented. For convenience of storage and readiness of handling, bombs are thought preferable to guns, and they will in the future be used in all the minor lighthouses of Canada. The report of the committee emphatically warns shipmasters against depending on fog signals, as at the best they are no guide to distance, but only to locality.—Marine Journal.

Go to Chicago Exposition via the Nickel Plate. Cheap rates.

Join the Grant Monument Exercises.

Through the excursions of members of Congress and Washington newspaper representatives on lake steamers during the past summer, as well as the scheme of the Lake Line Agents' Association of Chicago, in taking the municipal authorities of that city with government officials for a trip up the crooked and troublesome Chicago river, the vessel owners have begun a most favorable system of acquainting members of important legislative bodies with the extent of lake commerce and its needs for further advancement. Great benefit will undoubtedly result from these and other public demonstrations during the present season and efforts in this line should be continued. On Oct. 7, next Wednesday, the Grant monument at Lincoln park, Chicago, will be unveiled and many thousands of people from all parts of the country will witness the ceremonies,for which great preparations are being made. Collector of Customs Clark of Chicago is endeavoring to secure a creditable naval display in connection with this grand event, and is desirous of having as many vessels as possible assemble on the lake front off Lincln park during the few hours taken up by the ceremonies. The vessel owners of Chicago are also anxious that boats in port on that day take part in the display, not only from a patriotic standpoint but also from the fact that Chicago seems to scarcely know of late whether she has a marine or not, and all vessel owners have been at a loss, accordingly, through unfavorable legislation from her city council. The government vessels Michigan, Fessenden and Andy Johnson, as well as several of the line boats, will take part in the exercises, and it would seem that if for the single purpose of impressing upon the citizens of Chicago the importance of the lake marine and its needs in their harbor, all vessel owners having boats entering or leaving on that day should order them to join in the movement.

Talk of Contracts for New Boats.

Reports from Buffalo would indicate that it is as well as settled that F. W. Wheeler & Co. of West Bay City will build a steel boat for Hollister Bros., controlling owners of the Emily P. Weed, that will be 14 feet longer than the E. C. Pope. It is also said that the plans of the Minnesota Steamship Company for the two boats which they propose to build now favor a boat 350 feet long and 45 feet beam. The Cleveland Iron Mining Company has also sought figures on an additional boat for its fleet. They want a steamer of about 1,200 tons to engage mainly in carrying coal and pig iron. The talk of passenger boats for the Lehigh Valley company and the Delta Transportation company of Chicago is probably very much in advance of any definite plans from the managers of these companies.

In General.

Coal shipments from Buffalo to Oct. 1 are 1,687,580 tons, against 1,435,860 tons in 1890, 1,584,140 tons in 1889 and 1,833,290 tons in 1888.

Capt. S. B. Grummond of Detroit has bought the schooner Young America of Capt. M. W. Humphrey and Luther M. Davis for $2,500. She will be used for wrecking purposes.

Fayettee, the once prosperous Michigan village which contained the works of the Jackson Iron Company, is deserted. All of the effects of the iron company have been sold, mostly as scrap iron, and shipped to Chicago.

The schooner Golden Fleece, ashore at Dunkirk, Lake Erie, cannot be pulled over the bar that has formed around her. Reid's wrecking expedition at work on the boat did not accomplish much during the past week on account of rough weather but it is thought that a channel can be dredged to her in a day or two of fair weather.

The Inland Lloyds supplement for October, No. 5, is issued without the name of a single new boat for the month. It is seldom that this has happened within the past five years. The schooner Sage, released from Lake Huron and rebuilt at Buffalo, is given an A2 rating with a valuation of $25,000. Other changes are of little importance.

An impression has gone out that the steamer E. C. Pope was sold for less than $225,000, the figure at which it is said the sale was made. This may be so, but it is generally admitted that the boat brought more than $205,000 or even $210,000, figures at which she is said to have been offered for cash some time ago when the condition of lake business was not as encouraging as it is at present. The Eddy brothers of Bay City, purchasers of the boat, are fully able to pay cash for her.

It was said some time ago that Gen. Poe had included in his annual report an estimate of $50,000 to be applied as the engineer officers of the war department saw fit to the removal of obstructions in the connecting rivers of the lakes. It has since been understood that the appropriations, if secured, will be used for surveys and for corrections and additions to lake survey charts. This would mean the establishment of a hydrographic office on the lakes, but the vessel owners contemplate urging a service in this line that will require more than $50,000 for its equipment.

Wrecks and Heavy Losses.

The tug Bertha, laden with machinery from the Sault to Michipicoten, foundered Monday night off Point Iroquois and her crew of five men were all lost. Among the lost were sons of both Messrs Bell and Duncan, large owners in the Michipicoten mine. The crew lived in Canada.

The schooner Thomas Parsons sprung a leak and sunk 12 miles off Fairport, Lake Erie, Monday morning. She was bound up from Ashtabula with coal. The crew was saved, and Capt. C. E. Benham of Cleveland will try to raise the boat. The Parsons was built at Charlotte is 1868, measured 332 tons rated B1½, was valued at about $5,000, and was owned and sailed by Capt. John Mullens of Buffalo. She is insured for $3,500. It is not probable that she will be raised.

The schooner Mediterranean foundered near Cheboygan on Friday last. She had a cargo of rock plaster from Alabaster to South Chicago, E. G. Kohnert of Chicago was master and owner. She was valued at $5,000. The Mediterranean was built by Rogers at Sodus Point in 1859, and was therefore 32 years old. She measured only 227 tons, being one of the smaller of the canal schooners. Though so old she still rated A 2. as she had always been kept in fairly good condition.

Cleveland Matters.

Capt. John W. Moore and other admirers of the sloop yacht Minx of Sandusky, owned by Capt. G. C. Clary, claims that she is the fastest yacht of her kind on the lakes. The Minx is 72 feet long and carries a main boom 63 feet long.

Capt. C. C. Goodwin of the Cleveland life saving station expects to be given charge of the new Ashtabula station when it is built. He desires the change. Nothing has been said as yet of the appointment of a chief officer for the Cleveland station in event of the change being made.

Notices to Mariners.

Bulletin No. 4 from the light-house board, date of Sept. 1, reviews recent changes in aids to navigation throughout the country. Attention is called to the change at Tawas (Lake Huron) station from a flash of the fifth order to an occulting light of the fourth order, and the substitution at Portage river station of a red flash every minute in the fixed white light, instead of every two minutes as previously, but there are no other changes on the lakes that have not been already announced.

Commander Nicol Ludlow gives notice by direction of the light-house board that in the buoy lists and list of lights and fog signals for the Ninth light-house district for 1891, the color of Ludington north pier-head light should read white and not red as printed.

Speaks Well of the Review.

F. M. Barton, one of the editors and proprietors of the Cleveland MARINE REVIEW, made us a pleasant call this week. Mr. Barton is in pursuit of business for his paper from the seacoast. The REVIEW is an influential journal on the lakes, and we would advise any of our advertisers and friends who have marine devices of any kind for sale to give it a trial.—Marine Journal.

THE DETROIT TRIBUNE (WEEKLY) AND THE MARINE REVIEW, ONE YEAR, $2, THE PRICE OF ONE.

Go to Chicago Exposition via the Nickel Plate. Cheap rates.

Eastern Concerns Doing Business on the Lakes.

Last week the American Ship Windlass Company presented to the Annapolis Naval Academy a handsome nickel model of the windlass and capstan furnished by that company for one of the large war ships. The model is one-eighth size and works perfectly. It cost nearly $1,000, but Mr. Manton says he is willing to give that amount in order that the naval cadets should be brought up in the way they should go, and when they get to be commanders and admirals they will not depart therefrom. As all the new war ships are fitted with the Providence windlasses the model will be of practical benefit to the young "middies." There is no doubt that the plant of this company, to be enlarged shortly, is the best equipped of its kind in the United States. One of the company's steam capstan windlasses will be shipped to Scotland soon for a ship building by Robert Duncan's Sons, Glasgow. Steam windlasses and capstans and River's chain indicators have been ordered for the two steamships building at Newport News. The Pacific Mail steamship building at Chester will also have Providence windlasses and capstans.

The Virginia, illustrated in this issue, has a large number of auxiliary engines, some taking steam at 20 pounds and some at 80 pounds, while her boiler pressure is 160 pounds. Just where to place a single regulator and the pressure at which to set it would have been a serious problem, had not the builders settled it by purchasing twenty regulators from the Foster Engineering Company of New York. This provided a regulator for each engine and it was set accordingly. Now there has been no end of trouble with pressure regulators, some being inferior, and in some cases one regulator was expected to give 60 pounds pressure to the windlass and 80 to the steering engine. It can't be done. But where a Foster regulator is used for each engine requiring different pressure the result is satisfactory, or the regulator costs nothing. Mr. Palmer of the Quintard works speaks highly of the regulator and it is in fact the regulation pressure regulator for government war ships.

It is not generally known as yet that the contract for the 40-million gallon duty pumping engines for the World's Columbian Exposition has been awarded to Henry R. Worthington. Of course all the large pump concerns in the United States competed for this contract, but as in the case of the Centenial and Paris expositions this company was successful. There is seldom anything said about this company's plant but it has been so enlarged this year that the capacity is doubled. An immense foundry has been erected in Jersey City, and the shops have been fitted with special machinery that bores two cylinders and faces the ends at the same time.

The card of T. S. & J. D. Negus of New York, inserted in this issue, states that they have the largest line of nautical instruments in the United States. They also keep a full line of nautical books.

The steam yacht Wadena is fitted with closets patented and furnished by William Bishop, 210 South street, New York. This closet for location near the water line is superior to all others.

The 800 cork-jackets and life preservers for the passenger steamer Pilgrim were furnished by D. Kahnweiler, New York.

A schooner, the Eleanora, was found by salvers off the New Jersey coast, direlict, with 4 or 5 feet of water in her, and held to an anchor by a single hawser, nearly chafed off. She was brought into port in safety in face of a threatened storm, and Judge Benedict of New York held that the cargo of lumber aboard the vessel, which was valued at $1,500, should pay a salvage of $675.

The steam tug Ross and the side-wheel steamer Crystal Stream collided in the Hudson river a short time ago, and a libel for damages, brought by the owners of the side-wheel boat was heard by Judge Atchison of the federal court, New Jersey. The boats approached each other on crossing courses on a bright moonlight night. Each vessel was seen from the other a considerable time before the collision. The red light of the tug was just seen from the steamboat, which was going down stream, and a little later the green light also, when she gave a signal by one blast of her steam whistle and held on her course. The tug answered with one blast and did not change her course either until too late to avoid collision. The court held under the provision of Rule 19, which says that if two steam vessels are crossing so as to involve the risk of collision, the one which has the other on her own starboard side shall keep out of the way, the tug should have passed under the stern of the steamboat, and was at fault in persistently attempting to cross her bows.

Judge Carpenter of the United States district court, Rhode Island, heard a case a short time ago, in which a steam yacht had run down and sunk a schooner, and the sole question as to the liability was whether the schooner changed her course before the collision. Five witnesses, one of whom was disinterested, testified that the schooner did not change her course until the collision had become inevitable, and they were directly contradicted by only one witness. The court held that the yacht was liable, since the burden was on her to prove that the schooner changed her course.

Avoid breakdowns, repair jobs, and expensive and vexatious delays, by the application of the **Foster Steam Regulator and Governor** to all auxiliary engines and pumps on your ship.

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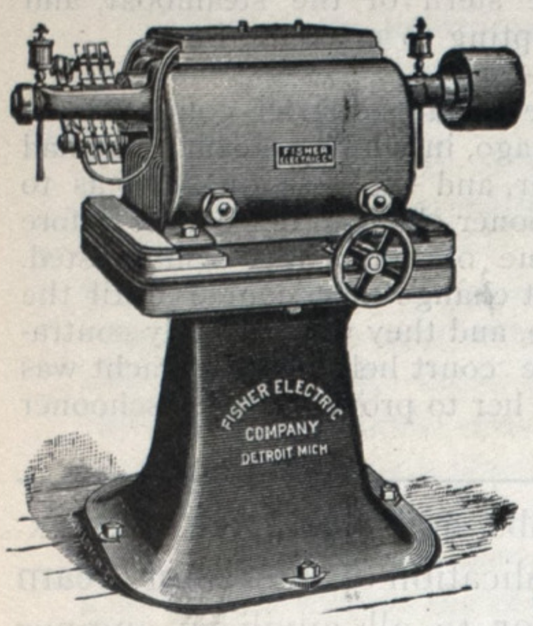
Detroit Sheet Metal & Brass Works, Detroit, Mich.
Chicago Ship Building Company, Chicago, Ill.
American Steel Barge Co., West Superior, Wis.

UNITED STATES ENGINEER OFFICE, 34 West Congress street, Detroit, Mich., September 19, 1891. Sealed proposals, in triplicate, will be received at this office until 2 o'clock p.m., October 19, 1891, and then opened: For furnishing ten gate anchorages for the 800 feet lock at St. Mary's Falls Canal, Michigan. Preference will be given to materials of domestic production or manufacture, conditions of quality and price (import duties included) being equal. Attention is invited to Acts of Congress, approved February 26, 1885, and February 23, 1887, vol. 23, page 332, and vol. 24, page 414, Statutes at Large. The government reserves the right to reject any or all proposals; also, to waive any informalities. For further information apply at this office. O. M. POE, Colonel, Corps of Engineers, Bvt. Brig. General, U. S. A.

THE Erie Railway has placed a new and elegant line of sleeping and parlor cars on its trains between Cleveland and Pittsburgh. The night train, 11:00 p. m., will carry straight sleeper of latest design and provided with every comfort and convenience, while the afternoon train, 2:55 p. m., will have drawing room car, perfect in every appointment. These cars have been especially prepared for the service and are excelled by none. Reserve space at 141 Superior street, Weddell House block.

$6.00—Chicago excursion, October 3, via the Nickel Plate. Under the auspices of Erie lodge, No. 27, I. O. O. F. of Cleveland, O. Trains leave Cleveland 6:30 a. m. and 9:30 p. m. Tickets good seven days. The Chicago Exposition opens Sept. 16, and closes October 26. The Grant monument will be unveiled Tuesday, October 6. The meeting of the Society of the Army of the Tennessee takes place October 7 to 9. Do not fail to see the World's Fair buildings now under construction.

SEE CAPT. PECK'S LETTER Regarding Incandescent Lighting Plant on the Steamer S. R. KIRBY.



NORTHWESTERN TRANSPORTATION CO.

DETROIT, MICH., Oct. 7, 1890.

FISHER ELECTRIC CO.,
Detroit, Mich.,

GENTLEMEN :—Replying to your inquiry regarding the operation of the 200 Light Incandescent Plant placed on the Steamer S. R. Kirby, we wish to say that the plant has operated during the season without an interruption and has not cost us one cent. No Lamps have been broken, and we would not be without it. Very truly yours,

E. M. PECK, President.

FISHER ELECTRIC COMPANY, 183, 185 & 187 Larned St., West, DETROIT, MICH

VESSEL AND MACHINERY EXCHANGE.

Space under this heading may be used gratis by our advertisers or subscribers to call attention to vessels or any craft, machinery, new or second hand, that they may have for sale. Those wanting machinery of any kind, or wishing to purchase vessels, are invited to take advantage of the same offer. Each item will be limited to three lines. Letters concerning same must mention number attached to item and be addressed MARINE REVIEW, 510 Perry-Payne Building, Cleveland, O.

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66—Steambarge that will carry 200 tons wanted for balance of season, or longer.

67—WANTED—To purchase a tug suitable for fishing purposes 60 to 80 feet long, engine 10 to 12 square; must have good deck room and be in good condition.

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69—WANTED—700-ton steamer with large per cent. of fullness.

70—Dredge hull wanted, or parties wanted to buy machinery for same.

71—60-foot sloop yacht with roomy cabin containing two state rooms.

72—Good second-hand 60-foot fish tug wanted.

73—Triple expansion surface condensing engine, 14, 22, 36 and 24 inches for sale.

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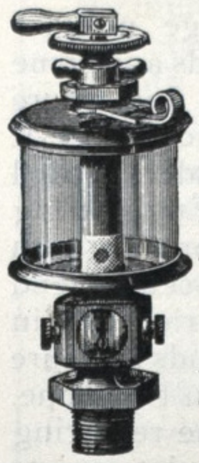

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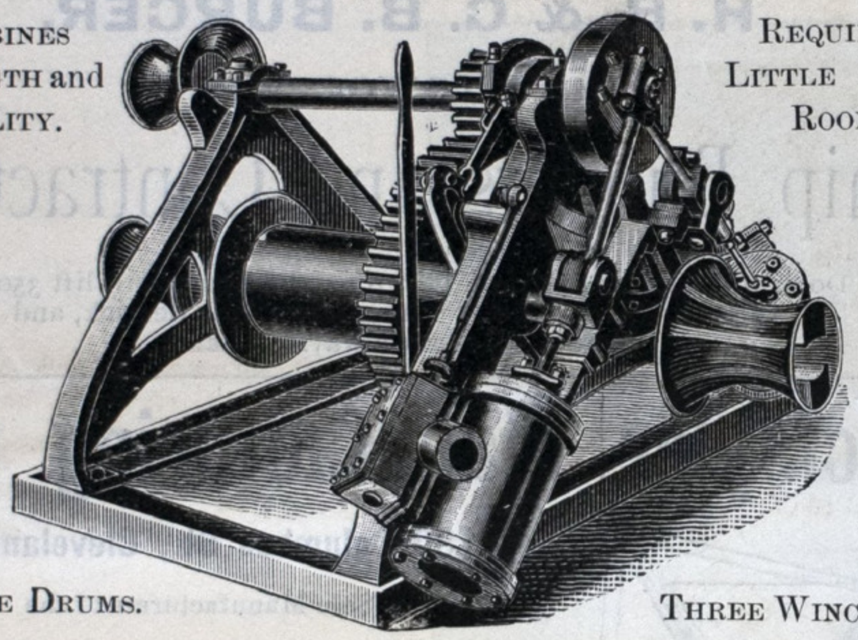

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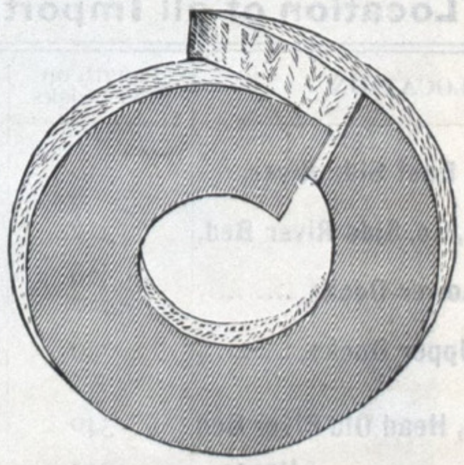

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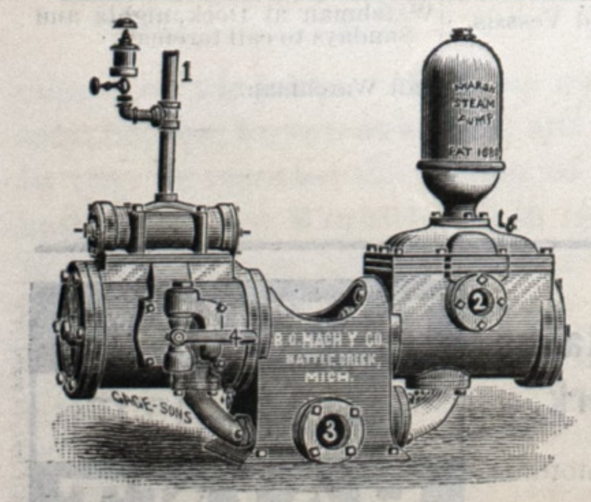

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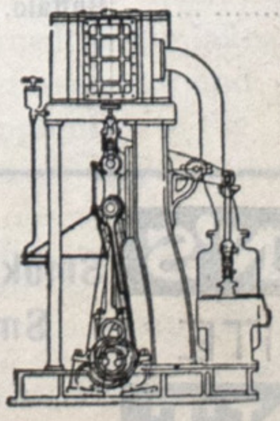

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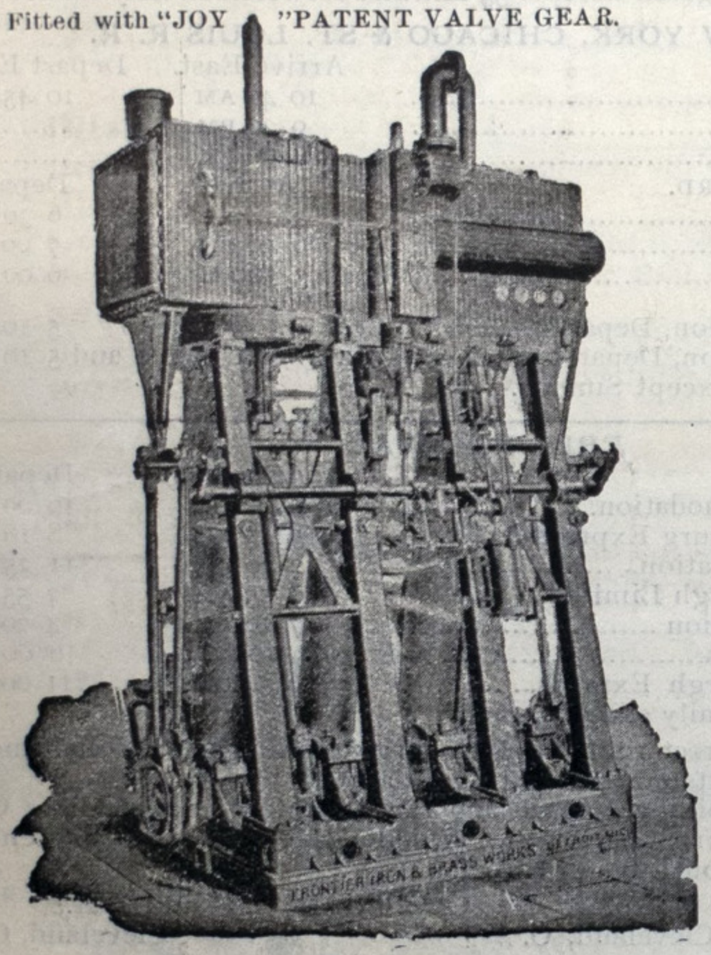

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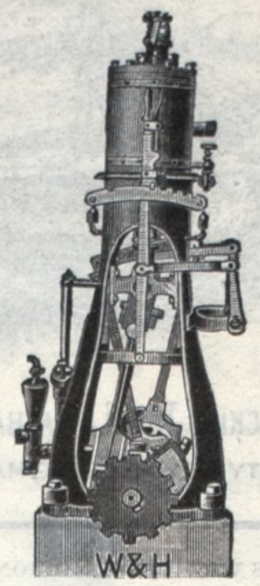

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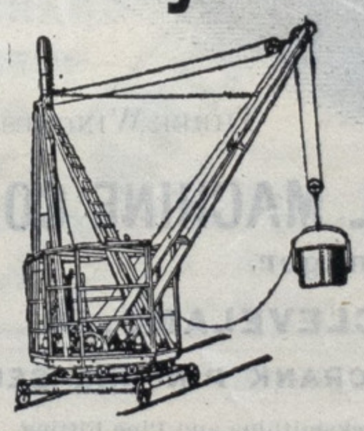

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